

### REMARKS

We have amended dependent claims 3 and 13 so as not to depend on a cancelled claim and have amended claim 7 so as not to depend on itself.

#### §112 Paragraph Rejections

We have addressed the Examiner's rejection to dependent claim 10 in the amendments to the claims. Specifically, we have amended dependent claim 10 to recite that the second power transmission line includes superconductor rather than the first power transmission line.

#### Prior Art Rejections

##### *Independent Claim 1*

The Examiner rejected claims 1, 3, 5, and 7 as being unpatentable over Sinha (2003/0183410) in view of Morita (U.S. 6,344,956).

We submit that there is no motivation to combine Sinha with Morita to teach a multi-line utility power transmission system including "a power flow controller, coupled to the second power transmission line, for regulating at least one of the magnitude and direction of the power flowing through the second power transmission line," as recited in amended claim 1, with the second power transmission line being a superconductive line. The Examiner acknowledges that Sinha fails to disclose a power flow controller (see page 3, Office Action). However, the Examiner argues that Morita can be combined with Sinha to teach this feature. We disagree.

Morita discloses a current-limiting device that "provide[s] a mechanism which promotes or generates quenching . . . to accomplish transition of the current-limiting element from a superconductive state to a normal conductive state . . . '[Q]uenching' refers to a sudden transition from superconduction to normal conduction" (col. 2, lines 54-55, 60, and 66-67). Even if the current-limiter of Morita is a power flow controller, which we do not concede, Morita does not teach that its current-limiter regulates the power flow. As stated in Applicants' specification, the power flow controller achieves variable power flow control over a superconductive line (see page 7, lines 13-22). Morita makes no mention of the possibility of

employing its current-limiter with a superconductive line so as to regulate superconductive power flow. In contrast, as Morita states, its current-limiter facilitates the transition from a superconductive state to a normal conductive state (col. 2, lines 66-67). Therefore, there is no motivation to combine Morita with Sinha to teach a multi-line utility power transmission system including "a power flow controller, coupled to the second power transmission line, for regulating at least one of the magnitude and direction of the power flowing through the second power transmission line," as recited in amended claim 1.

For at least these reasons, we submit that claim 1 is allowable over Sinha and Morita, alone or in combination. We also submit that because claims 3, 5 and 7 depend from claim 1, these dependent claims are allowable for at least the same reasons that independent claim 1 is allowable.

#### *Dependent Claim 4*

The Examiner rejected claim 4 as being unpatentable over Sinha and Morita and further in view of Talisa (U.S. 5,878,334). Sinha and Morita have been discussed above. We submit that Talisa, alone or in combination with Sinha or Morita, does not disclose or render obvious a multi-line utility power transmission system including "a power flow controller, coupled to the second power transmission line, for regulating at least one of the magnitude and direction of the power flowing through the second power transmission line," as required by claim 4. For at least these reasons, we submit that claim 4 is allowable over Sinha and Morita in further view of Talisa.

#### *Dependent Claim 6*

The Examiner rejected claim 6 as being unpatentable over Sinha and Morita and further in view of Shimomura (JP 11122793A). Sinha and Morita have been discussed above. We submit that Shimomura, alone or in combination with Sinha or Morita, does not disclose or render obvious a multi-line utility power transmission system including "a power flow controller, coupled to the second power transmission line, for regulating at least one of the magnitude and

direction of the power flowing through the second power transmission line," as required by claim 6. For at least these reasons, we submit that claim 4 is allowable over Sinha and Morita in further view of Shimomura.

*Dependent Claims 8 and 9*

The Examiner rejected claims 8 and 9 as being unpatentable over Sinha and Morita and further in view of Hingorani (U.S. 5,420,495). Sinha and Morita have been discussed above. We submit that Hingorani, alone or in combination with Sinha or Morita, does not disclose or render obvious a multi-line utility power transmission system including "a power flow controller, coupled to the second power transmission line, for regulating at least one of the magnitude and direction of the power flowing through the second power transmission line," as required by claims 8 and 9. For at least these reasons, we submit that claims 8 and 9 are allowable over Sinha and Morita in further view of Hingorani.

*Independent Claim 10*

The Examiner rejected claims 10, 11, and 13-14 as being unpatentable over Sinha in view of Hingorani.

We submit that there is no motivation to combine Sinha with Hingorani to teach a method including "regulating the amount of power transferred through the second power transmission line," as recited in amended claim 10, with the second power transmission line being a superconductive line. The Examiner acknowledges that Sinha fails to disclose regulating the power flow through the second transmission line (see page 5, Office Action). However, the Examiner argues that Hingorani can be combined with Sinha to teach this feature. We disagree.

Hingorani discloses "a method of controlling power flow in either direction between first and second power systems" and the method includes "steps of monitoring a parameter of power flowing through the transmission line, and in response to the monitoring step, selectively coupling a variable capacitive impedance to the transmission line" (col. 2, lines 45-47, 51-55). Even if the method disclosed in Hingorani regulates the amount of power transferred through a

transmission line, which we do not concede, Hingorani does not teach that the method regulates power flow over a superconductive line, as required by claim 10. If anything, Hingorani suggests regulating a non-superconducting line, but Hingorani makes no mention of the possibility of regulating a superconductive line. Therefore, there is no motivation to combine Hingorani with Sinha to teach a method including "regulating the amount of power transferred through the second power transmission line," as recited in amended claim 10.

For at least these reasons, we submit that claim 10 is allowable over Sinha and Hingorani, alone or in combination. We also submit that because claims 11, 13 and 14 depend from claim 10, these dependent claims are allowable for at least the same reasons that independent claim 10 is allowable.

#### *Dependent Claim 15*

The Examiner rejected claim 15 as being unpatentable over Sinha and Hingorani and further in view of Shimomura (JP 11122793A). Sinha and Hingorani have been discussed above. We submit that Shimomura, alone or in combination with Sinha or Hingorani, does not disclose or render obvious a method including "regulating the amount of power transferred through the second power transmission line," as recited in amended claim 10. For at least these reasons, we submit that claim 4 is allowable over Sinha and Hingorani in further view of Shimomura.

It is believed that all of the pending claims have been addressed. The absence, however, of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been addressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, we submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

The fee in the amount of \$120 for the extension fee is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket Number 05770-189001.

Respectfully submitted,

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